```
     FILE 'MEDLINE, EMBASE, BIOSIS' ENTERED AT 12:50:09 ON 15 APR 2005
L1       159613 S HITOSHI?/AU OR DEMO?/AU OR JENKINS?/AU OR ENGELHARD?/AU OR MO
L2         1097 S MRE11
L3            3 S L1 AND L2
L4            1 DUP REM L3 (2 DUPLICATES REMOVED)
L5            0 S ((ASSAY OR SCREEN) (P) MODULAT?) AND L2
L6        24509 S ((ASSAY OR SCREEN) (P) MODULAT?)
L7          297 S L6 AND "DNA REPAIR"
L8            0 S L7 AND MRE11
L9           14 S L7 AND HELA
L10           0 S L9 AND "SAK"
L11         435 S "SAK"
L12           0 S L11 AND L2
L13           1 S L11 AND "DNA REPAIR"
L14         101 S SAK (S) (PROTEIN OR POLYPEPTIDE OR PEPTIDE)
L15          71 S L14 NOT PY>=2002
L16          29 DUP REM L15 (42 DUPLICATES REMOVED)
L17          25 S RIGEL
L18           0 S L17 AND L2
L19           9 S L11 AND "CELL PROLIFERATION"
L20           5 DUP REM L19 (4 DUPLICATES REMOVED)
L21      266038 S CELL? (W) PROLIFERATION
L22          27 S L21 AND L2
L23          19 DUP REM L22 (8 DUPLICATES REMOVED)
L24           5 S L23 NOT PY>=2002
L25        1738 S RAD50 OR NBS1
L26       39585 S "THYMIDINE INCORPORATION" OR "BRDU INCORPORATION" OR HOESCHT
L27      125323 S HI299 OR MDA-MB OR MCF7 OR A659 OR HELA OR PC3
L28        2510 S P53 (W) (NULL OR WILD)
L29         772 S L2 AND L25
L30           1 S L2 AND L26
L31          51 S L2 AND L27
L32           0 S L2 AND L28
L33          11 S L29 AND "CELL CULTURE"
L34          11 DUP REM L33 (0 DUPLICATES REMOVED)
L35           2 S L34 NOT PY>=2002
L36           0 S L31 AND "CELL CULTURE"
L37           0 S L31 AND L6
L38           0 S L31 AND L1
L39           0 S L31 AND CULTURE
L40           0 S L31 AND L21
L41           1 S L31 AND L21
L42           9 S L31 AND (ANTIBODY OR ANTISENSE OR PEPTIDE OR CIRCULAR)
L43           6 DUP REM L42 (3 DUPLICATES REMOVED)
L44         950 S "COMPLEMENTATION ASSAY"
L45           3 S L44 AND L2
L46           1 DUP REM L45 (2 DUPLICATES REMOVED)
L47         435 S "DNA REPAIR" (2W) ASSAY
L48           0 S L47 AND L2
L49           0 S L47 AND SAK
L50         388 S L47 NOT PY>=2002
L51           1 S L50 AND L26
L52           9 S L50 AND L27
L53           5 DUP REM L52 (4 DUPLICATES REMOVED)
L54           0 S L28 AND L44
L55           0 S L28 AND L47
L56         125 S L28 AND L27
L57          10 S L56 AND L21
L58           7 DUP REM L57 (3 DUPLICATES REMOVED)
L59           4 S L58 NOT PY>=2002
L60          66 S L2 AND (ANTIBODY OR ANTISENSE OR PEPTIDE OR CIRCULAR)
L61          19 S L60 NOT PY>=2002
L62          15 DUP REM L61 (4 DUPLICATES REMOVED)

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L4 ANSWER 1 OF 1 MEDLINE on STN DUPLICATE 1

ACCESSION NUMBER: 2000050557 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10581236
TITLE: **Mre11** is essential for the maintenance of chromosomal DNA in vertebrate cells.
AUTHOR: Yamaguchi-Iwai Y; Sonoda E; Sasaki M S; **Morrison C**; Haraguchi T; Hiraoka Y; Yamashita Y M; Yagi T; Takata M; Price C; Kakazu N; Takeda S
CORPORATE SOURCE: Bayer-Chair Department of Molecular Immunology and Allergology, Faculty of Medicine.
SOURCE: EMBO journal, (1999 Dec 1) 18 (23) 6619-29.
Journal code: 8208664. ISSN: 0261-4189.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF166094
ENTRY MONTH: 200001
ENTRY DATE: Entered STN: 20000209
Last Updated on STN: 20030218
Entered Medline: 20000131

AB Yeast **Mre11** functions with Rad50 and Xrs2 in a complex that has pivotal roles in homologous recombination (HR) and non-homologous end-joining (NHEJ) DNA double-strand break (DSB) repair pathways. Vertebrate **Mre11** is essential. Conditionally, **MRE11** null chicken DT40 cells accumulate chromosome breaks and die upon **Mre11** repression, showing frequent centrosome amplification. **Mre11** deficiency also causes increased radiosensitivity and strongly reduced targeted integration frequencies. **Mre11** is, therefore, crucial for HR and essential in mitosis through its role in chromosome maintenance by recombinational repair. Surprisingly perhaps, given the role of **Mre11** in yeast NHEJ, disruption of NHEJ by deletion of KU70 greatly exacerbates the effects of **MRE11** deficiency, revealing a significant **Mre11**-independent component of metazoan NHEJ.

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PROCESSING COMPLETED FOR L19
L20 5 DUP REM L19 (4 DUPLICATES REMOVED)

=> d l20 ibib abs total

L20 ANSWER 1 OF 5 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
ACCESSION NUMBER: 2005062144 EMBASE
TITLE: **Sak**/Plk4 and mitotic fidelity.
AUTHOR: Swallow C.J.; Ko M.A.; Siddiqui N.U.; Hudson J.W.; Dennis J.W.
CORPORATE SOURCE: J.W. Dennis, Samuel Lunenfeld Research Institute, Mount Sinai Hospital, 600 University Ave. R988, Toronto, Ont. M5G 1X5, Canada. dennis@mshri.on.ca
SOURCE: Oncogene, (10 Jan 2005) Vol. 24, No. 2, pp. 306-312.
Refs: 51
ISSN: 0950-9232 CODEN: ONCNES
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 016 Cancer
022 Human Genetics
029 Clinical Biochemistry
048 Gastroenterology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20050224
Last Updated on STN: 20050224

AB **Sak**/Plk4 differs from other polo-like kinases in having only a single polo box, which assumes a novel dimer fold that localizes to the nucleolus, centrosomes and the cleavage furrow. **Sak** expression increases gradually in S through M phase, and **Sak** is destroyed by APC/C dependent proteolysis. **Sak**-deflcient mouse embryos arrest at E7.5 and display an increased incidence of apoptosis and anaphase arrest. **Sak**(+/-) mice are haploinsufflcient for tumor suppression, with spontaneous tumors developing primarily in the liver with advanced age. During liver regeneration following partial hepatectomy, **Sak**(+/-) hepatocytes display a delay in reaching the first M phase, multipolar spindles, disorganized tissue morphology and loss of acuity for cyclin B1 expression. Similarly, **Sak**(+/-) MEF cells proliferate slowly, and show a high incidence of centrosome hyper-amplification. We suggest that **Sak** provides feedback to cell cycle regulators, and thereby precision to the switch-like transitions of centrosome duplication and exit-from-mitosis. **Sak** binds to p53, and studies are underway to provide a molecular context for the **Sak**-p53 interaction. Animal models of haploinsufficiency and more comprehensive models of cell cycle regulation should contribute to improvements in cancer risk assessment and novel therapies.

L20 ANSWER 2 OF 5 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN
ACCESSION NUMBER: 2003214649 EMBASE
TITLE: Effect of the polylysine based polymeric polypeptides on the growth and chemotaxis of Tetrahymena pyriformis.
AUTHOR: Szabo R.; Mezo G.; Hudecz F.; Kohidai L.
CORPORATE SOURCE: F. Hudecz, Research Group of Peptide Chemistry, Hungarian Academy of Science, P.O. Box 32, H-1518, Budapest 112, Hungary. hudecz@szerves.chem.elte.hu
SOURCE: Journal of Bioactive and Compatible Polymers, (2002) Vol. 17, No. 6, pp. 399-415.
Refs: 23
ISSN: 0883-9115 CODEN: JBCPEV
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 027 Biophysics, Bioengineering and Medical Instrumentation
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 20030612
Last Updated on STN: 20030612

AB Polylysine based branched polypeptides represents a group of biocompatible polymers that could be utilized as macromolecular carriers for drugs, epitopes or reporter molecules. Ten polymers with different character (amino acid composition and charge properties) were prepared: polypeptides with single amino acid in the branches (poly[Lys(X(i))]), X=His, Pro or Glu; and polymers possessing oligo[DL-alanine] side chains only (poly[Lys(DL-Ala(m)) (AK) or with an additional amino acid residue poly[Lys(X(i)-DL-Ala(m))] (XAK), where X=Ser (**SAK**), Thr (TAK), Glu (EAK), acetyl-Glu (Ac-EAK) or succinyl-Glu (Succ-EAK). were investigated. The concentration of these compounds influence the chemotaxis and survival of eukaryotic unicellular model organism, Tetrahymena pyriformis GL. Two types of experiments were performed. First the polymer induced chemoattractant/chemorepellent response of Tetrahymena cells were tested, then chemotactic selection experiments were performed. The chemotactic responses elicited by the polymers were dependent not only on chemical properties (composition, charge and the length of the side chain) of the compounds, but also on their concentration. Based on these results, the polymers were grouped as full-chemoattractant expressing this behavior in the full concentration range investigated (H(i)K), full-chemorepellent (E(i)K and Ac-EAK) and partial chemoattractant/chemorepellent with concentration dependent activity (P(i)K, EAK and Succ-EAK).

L20 ANSWER 3 OF 5 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2001569350 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11489907
TITLE: **Sak** serine-threonine kinase acts as an effector of Tec tyrosine kinase.
AUTHOR: Yamashita Y; Kajigaya S; Yoshida K; Ueno S; Ota J; Ohmine K; Ueda M; Miyazato A; Ohya K; Kitamura T; Ozawa K; Mano H
CORPORATE SOURCE: Divisions of Functional Genomics, Cardiology and Hematology, Jichi Medical School, Kawachi-gun, Tochigi 329-0498, Japan.
SOURCE: Journal of biological chemistry, (2001 Oct 19) 276 (42) 39012-20. Electronic Publication: 2001-08-06.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AB006972
ENTRY MONTH: 200112
ENTRY DATE: Entered STN: 20011029
Last Updated on STN: 20030105
Entered Medline: 20011204

AB The murine **sak** gene encodes a putative serine-threonine kinase which is homologous to the members of the Plk/Polo family. Although **Sak** protein is presumed to be involved in cell growth mechanism, efforts have failed to demonstrate its kinase activity. Little has been, therefore, elucidated how **Sak** is regulated and how **Sak** contributes to **cell proliferation**. Tec is a cytoplasmic protein-tyrosine kinase (PTK) which becomes activated by the stimulation of cytokine receptors, lymphocyte surface antigens, heterotrimeric G protein-linked receptors, and integrins. To clarify the in vivo function of Tec, we have tried to isolate the second messengers of Tec by using the yeast two-hybrid screening. One of such Tec-binding proteins turned out to be **Sak**. In human kidney 293 cells, **Sak** became tyrosine-phosphorylated by Tec, and the serine-threonine kinase activity of **Sak** was detected only under the presence of Tec, suggesting **Sak** to be an effector molecule of Tec. In addition, Tec activity efficiently protects **Sak** from the "PEST" sequence-dependent proteolysis. Internal deletion of the PEST sequences led to the stabilization of **Sak** proteins, and expression of these mutants acted suppressive to cell growth. Our data collectively supports a novel role of **Sak** acting in the PTK-mediated signaling pathway.

L20 ANSWER 4 OF 5 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1999:453204 BIOSIS
DOCUMENT NUMBER: PREV199900453204
TITLE: Molecular analysis of selected cell cycle regulatory proteins during aerobic and hypoxic maintenance of human ovarian carcinoma cells.
AUTHOR(S): Krtolica, A.; Krucher, N. A.; Ludlow, J. W. [Reprint author]
CORPORATE SOURCE: Department of Biochemistry and Biophysics, University of Rochester School of Medicine and Dentistry, Rochester, NY, USA
SOURCE: British Journal of Cancer, (Aug., 1999) Vol. 80, No. 12, pp. 1875-1883. print.
CODEN: BJCAAI. ISSN: 0007-0920.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 26 Oct 1999
Last Updated on STN: 3 May 2000

AB We have previously reported on the development of an in vitro model system for studying the effect of hypoxia on ovarian carcinoma **cell proliferation** and invasion (Krtolica and Ludlow, 1996). These data indicate that the cell division cycle is reversibly arrested during the G1 phase. Here, we have continued this study to include the proliferation properties of both aerobic and hypoxic human ovarian carcinoma cells at the molecular level. The growth suppressor product of the retinoblastoma susceptibility gene, pRB, appears to be functional in these cells as determined by SV40 T-antigen binding studies. Additional G1-to-S cell cycle regulatory proteins, cyclins D and E, cyclin-dependent kinases (cdks) 4 and 2, and cdk inhibitors p27 and p18, also appear to be intact based on their apparent molecular weights and cell cycle stage-specific abundance. During hypoxia, there is a decrease in abundance of cyclins D and E, with an increase in p27 abundance. cdk4 activity towards pRB and cdk2 activity towards histone H1 are also decreased. Co-precipitation studies revealed an increased amount of p27 complexing with cyclin E-cdk2 during hypoxia than during aerobic cell growth. In addition, pRB-directed phosphatase activity was found to be greater in hypoxic than aerobic cells. Taken together, a model is suggested to explain hypoxia-induced cell cycle arrest in SKA human ovarian carcinoma cells.

L20 ANSWER 5 OF 5 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 94294387 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8022793
TITLE: **Sak**, a murine protein-serine/threonine kinase that is related to the Drosophila polo kinase and involved in **cell proliferation**.
AUTHOR: Fode C; Motro B; Yousefi S; Heffernan M; Dennis J W
CORPORATE SOURCE: Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, ON Canada.
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1994 Jul 5) 91 (14) 6388-92.
Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-L29479; GENBANK-L29480
ENTRY MONTH: 199408
ENTRY DATE: Entered STN: 19940815
Last Updated on STN: 20020420
Entered Medline: 19940801

AB We have isolated murine cDNAs encoding two isoforms of a putative protein-serine/threonine kinase, designated **Sak**-a and **Sak**-b, which differ in their noncatalytic C-terminal ends. The kinase domain of **Sak** is related to the catalytic domains of the Drosophila polo, Saccharomyces cerevisiae CDC5, and murine Snk and Plk kinases, a family of proteins for which a role in controlling **cell**

proliferation has been established (polo, CDC5) or implicated (Snk, Plk). Northern and in situ RNA analyses of **Sak** gene expression in mouse embryos and adult tissues revealed that expression was associated with mitotic and meiotic cell division. In addition, during embryogenesis, **Sak** expression was prominent in the respiratory and olfactory mucosa. The pattern of **Sak** expression and its sequence homology with the polo gene family suggest that the **Sak** kinase may play a role in **cell proliferation**. In support of this, cell growth was suppressed by expression of a **Sak** -a-antisense fragment in CHO cells.

=>

CESSION NUMBER: 2002104290 EMBASE
TITLE: The Haemophilus ducreyi cytolethal distending toxin activates sensors of DNA damage and repair complexes in proliferating and non-proliferating cells.
AUTHOR: Li L.; Sharipo A.; Chaves-Olarte E.; Masucci M.G.; Levitsky V.; Thelestam M.; Frisan T.
CORPORATE SOURCE: T. Frisan, Microbiology/Tumorbiology Center, Karolinska Institutet, Stockholm, Sweden. teresa.frisan@mtc.ki.se
SOURCE: Cellular Microbiology, (2002) Vol. 4, No. 2, pp. 87-99.
Refs: 42
ISSN: 1462-5814 CODEN: CEMIF5
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 004 Microbiology
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20020328
Last Updated on STN: 20020328

AB Cytolethal distending toxins (CDTs) block proliferation of mammalian cells by activating DNA damage-induced checkpoint responses. We demonstrate that the Haemophilus ducreyi CDT (HdCDT) induces phosphorylation of the histone H2AX as early as 1 h after intoxication and re-localization of the DNA repair complex **Mre11** in **HeLa** cells with kinetics similar to those observed upon ionizing radiation. Early phosphorylation of H2AX was dependent on a functional Ataxia Telangiectasia mutated (ATM) kinase. Microinjection of a His-tagged HdCdtB subunit, homologous to the mammalian DNase I, was sufficient to induce re-localization of the **Mre11** complex 1 h post treatment. However, the enzymatic potency was much lower than that exerted by bovine DNase I, which caused marked chromatin changes at 10(6) times lower concentrations than HdCdtB. H2AX phosphorylation and **Mre11** re-localization were induced also in HdCDT-treated, non-proliferating dendritic cells (DCs) in a differentiation dependent manner, and resulted in cell death. The data highlight several novel aspects of CDTs biology. We demonstrate that the toxin activates DNA damage-associated molecules in an ATM-dependent manner, both in proliferating and non-proliferating cells, acting as other DNA damaging agents. Induction of apoptotic death of immature DCs by HdCDT may represent a previously unknown mechanism of immune evasion by CDT-producing microbes.

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L43 ANSWER 4 OF 6 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2002083469 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11809878
TITLE: Reconstitution of the mammalian DNA double-strand break end-joining reaction reveals a requirement for an **Mre11**/Rad50/NBS1-containing fraction.
AUTHOR: Huang Juren; Dynan William S
CORPORATE SOURCE: Institute of Molecular Medicine and Genetics, Program in Gene Regulation, CB-2803, Medical College of Georgia, 1120 15th Street, Augusta, GA 30912, USA.
SOURCE: Nucleic acids research, (2002 Feb 1) 30 (3) 667-74. Journal code: 0411011. ISSN: 1362-4962.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200202
ENTRY DATE: Entered STN: 20020128
Last Updated on STN: 20030218
Entered Medline: 20020222

AB The non-homologous end-joining pathway promotes direct enzymatic rejoining of DNA double-strand breaks (DSBs) and is an important determinant of genome stability in eukaryotic cells. Although previous work has shown that this pathway requires Ku, DNA-PKcs and the DNA ligase IV/XRCC4 complex, we found that these proteins alone did not promote efficient joining of cohesive-ended DNA fragments in a cell-free assay. To identify factors that were missing from the reaction, we screened fractions from **HeLa** cell extracts for the ability to stimulate the joining of cohesive DNA ends in a complementation assay containing other known proteins required for DNA DSB repair. We identified a factor that restored end-joining activity to the level observed in crude nuclear extracts. Factor activity copurified with Rad50, **Mre11** and NBS1, three proteins that have previously been implicated in DSB repair by genetic and cytologic evidence. Factor activity was inhibited by anti-**Mre11 antibody**. The reconstituted system remained fully dependent on DNL IV/XRCC4 and at least partially dependent on Ku, but the requirement for DNA-PKcs was progressively lost as other components were purified. Results support a model where DNA-PKcs acts early in the DSB repair pathway to regulate progression of the reaction, and where **Mre11**, Rad50 and NBS1 play a key role in aligning DNA ends in a synaptic complex immediately prior to ligation.

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	113824	hitoshi.in. or demo.in. or jenkins. in. or Rigel$.As.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L2	105	mre11	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L3	2	L1 and L2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L4	45373	"cellular proliferation" or "cell proliferation"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L5	35	L2 and L4	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L6	456924	(system or method or process) WITH (identification or identifying or isolation or isolating)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L7	33	L5 and L6	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L8	105	"mre11"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L9	33	L7 and L8	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L10	3	NBS1 WITH RAD	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L11	1	L2 SAME (NBS1 and RAD)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L12	2546	augustus.in. or endress.in. or soppet.in. or hooykaas.in. or attikum.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09

L13	1	L12 and L2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L14	20329	engelhard.in. or morris.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L15	0	L14 and L2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L16	0	L14 and L8	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L17	26	L14 and "carcinoma associated"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L18	80335	"drug screen" or "therapeutic agent"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L19	32	L2 and L18	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
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L22	0	youn.in. and augustus.in. and weaver.in. and endress.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L23	2	young.in. and augustus.in. and weaver.in. and endress.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L24	9	"WO 01/94629"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09

L25	1	"WO 200194629"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L26	4	loring.in. and kaser.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L27	36716	PC3 or HI299 or MDA or MB-231 or MCF7 or A549 or hela	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L28	41	L27 and L2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L29	113824	hitoshi.in. or demo.in. or jenkins. in. or Rigel$.As.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L30	105	mre11	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L31	45373	"cellular proliferation" or "cell proliferation"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L32	456924	(system or method or process) WITH (identification or identifying or isolation or isolating)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L33	105	"mre11"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L34	2546	augustus.in. or endress.in. or soppet.in. or hooykaas.in. or attikum.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L35	20329	engelhard.in. or morris.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L36	0	L35 and L30	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09

L37	0	L35 and L33	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L38	80335	"drug screen" or "therapeutic agent"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L39	50	L34 and "anti-neoplastic agent"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L40	0	youn.in. and augustus.in. and weaver.in. and endress.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L41	36716	PC3 or HI299 or MDA or MB-231 or MCF7 or A549 or hela	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L42	1	L30 SAME (NBS1 and RAD)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L43	1	L34 and L30	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L44	20311	morris.in. or engelhard.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:09
L45	1	"WO 200194629"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L46	2	L29 and L30	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L47	35	L30 and L31	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L48	33	L47 and L32	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09

L49	33	L48 and L33	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L50	3	NBS1 WITH RAD	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L51	26	L35 and "carcinoma associated"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L52	32	L30 and L38	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L53	6	L39 and "signature set"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L54	2	young.in. and augustus.in. and weaver.in. and endress.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L55	9	"WO 01/94629"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L56	4	loring.in. and kaser.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L57	41	L41 and L30	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2005/04/15 15:09
L58	2378	func	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:21
L59	5748	functional ADJ assay	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:21
L60	12	l59 and l2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:25

L61	1	l60 and "multidrug resistance"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:23
L62	149	l59 and "multidrug resistance"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:25
L63	1	l62 and mre11	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:25
L64	0	l62 and rad50	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:26
L65	1	l62 and xrs2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:26
L66	0	l62 and nbs2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:26
L67	18	"hooykaas.in" or bundock.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:31
L68	1	l67 and mre11	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:27
L69	23	daffo.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:31
L70	0	l69 and mre11	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:31
L71	0	l69 and "mdd"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:32
L72	8	l69 and "MDDT"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:39

L73	0	jacksong.in. and "MDDT"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:39
L74	16	jackson.in. and "MDDT"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:40
L75	16	l74 and (screen (s) compound)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:41
L76	1	l74 and (screen with compound)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:56
L77	2	"20020115057"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/04/15 15:56

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mre11 and "drug screen" Search Advanced Search Preferences

The "AND" operator is unnecessary – we include all search terms by default. [details]

Web

Results **1** - **10** of about **13** for **mre11 and "drug screen"**. (**0.42** seconds)

Yves Pommier, MD, Ph. D.
... from the NCI Anticancer **Drug Screen** and cell lines with selected gene disruptions.
... Phosphorylation of histone H2AX and activation of **Mre11**, Rad50, ...
discover.nci.nih.gov/pommier/pommier.htm - 38k - Cached - Similar pages

[PDF] Meeting Report: EU–US Workshop on Molecular Signatures of DNA ...
File Format: PDF/Adobe Acrobat - View as HTML
... the **MRE11** nuclease through a commonly occurring. interaction motif: a four-helix bundle ... group considers this less a **drug screen** than an at- ...
www.medgencentre.nl/molsign-workshop/ Mutat%20Res%20June%202004.pdf - Similar pages

[PDF] Yeast Mutants As a Model System for Identification of Determinants ...
File Format: PDF/Adobe Acrobat - View as HTML
... (1996) Human Rad50 is physically associated with human **Mre11**: Identification of
... anticancer **drug screen**. Proc Am Assoc Cancer Res 41:471. ...
cancer.ucsd.edu/howelllab/YeastMutants.pdf - Similar pages

Yeast Mutants As a Model System for Identification of Determinants ...
... The product of rad32Sp/**MRE11**Sc has nuclease and double-strand DNA ... A new world wide web site provides data from the NCI yeast anticancer **drug screen**. ...
pharmrev.aspetjournals.org/cgi/content/full/52/4/477 - Similar pages

TUMOR CELL DEATH INDUCED BY TOPOISOMERASE-TARGETING DRUGS - Annual ...
... 134) have suggested that the Rad50/**Mre11**/Xrs2 complex may be involved in ...
Anticancer **Drug Screen**: multifactorial relationships with topoisomerase I, ...
arjournals.annualreviews.org/ doi/full/10.1146/annurev.pharmtox.41.1.53 - Similar pages

Current Opinion in Oncology - Fulltext: Volume 17(1) January 2005 ...
... et al: Mutations of an intronic repeat induce impaired **MRE11** expression in primary human ... Holbeck SL: Update on NCI in vitro **drug screen** utilities. ...
www.co-oncology.com/pt/re/cooncology/ fulltext.00001622-200501000-00013.htm - Similar pages

[PDF] Nature subject index for volumes 415–420 2002
File Format: PDF/Adobe Acrobat - View as HTML
... Adenovirus oncoproteins inactivate the **Mre11**- ... Neurologists strike gold in **drug screen** effort, News, Abbott, A,. 417, 109 ...
www.nature.com/nature/archive/indexes/nature_ 415-420_subject.pdf?file=/nature/journal/v426/n6968/index.html - Similar pages

MDRG Symposium Program
... Protein Levels And Chemo-Sensitivity Patterns In Cell Lines Of The NCI Anticancer **Drug Screen**. ... the repair of the DNA-dsbs (ie, DNA-PK, and RAD50/**MRE11** proteins ...
www.louisville.edu/~jcstat01/Program.html - 100k - Supplemental Result - Cached - Similar pages

Cancer Research -- Jacob et al. 61 (17): 6555
... is part of the **MRE11**/RAD50 complex known to participate in DSB repair. ...
of the National Cancer Institute anticancer **drug screen** and correlations with ...
cancerres.aacrjournals.org/cgi/content/full/61/17/6555 - Similar pages

JBC – Rogakou et al. 275 (13): 9390
... MCF7, another breast carcinoma from the NCI Anticancer **Drug Screen**, undergoes cell ... Phosphorylation of Histone H2AX and Activation of **Mre11**, Rad50, ...
www.jbc.org/cgi/content/full/275/13/9390 - Similar pages

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Results **1** - **4** of **4** for **mre11 and "test compound"**. (**0.19** seconds)

Tip: Try removing quotes from your search to get more results.

[PDF] Progr am and abstr acts
File Format: PDF/Adobe Acrobat - View as HTML
... complex whose core contains the **Mre11**, Rad50 and. Nbs1 proteins and the BRCT proteins Brca1, ... 5 mg of **test compound**, the AmesII assay gives a good ...
www.swan.ac.uk/cget/ejgt/eemsabs2004.pdf - Similar pages

United States Patent Application: 0040209239
... amount suitable to complement and enhance the activity of the **test compound**. ... TRF2 associates with the **MRE11**-RAD50-EBNA1 facilitated recombinant double strand ...
appft1.uspto.gov/.../search-adv.html& r=87&p=2&f=G&l=50&d=PG01&S1=nano&OS=nano - 101k - Supplemental Result - Cached - Similar pages

[PDF] Eighteenth Aspen Cancer Conference: Mechanisms of toxicity ...
File Format: PDF/Adobe Acrobat
... **MRE11**, RAD50, and BRCA1 at M1. In addition,. approximately 10% of the shortest telomeres ... for the training set and the **test compound**. Cluster ...
doi.wiley.com/10.1002/mc.10167 - Similar pages

[DOC] The 5th International Symposium on Chromosomal Aberrations
File Format: Microsoft Word 97 - View as HTML
... RAD50/**MRE11**/microhomology-mediated end-joining or homologous recombination.
... DEN was chosen as a **test compound** because of its unusual characteristic ...
www.swan.ac.uk/cget/ejgt/japan.doc - Similar pages

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Web Results **1** - **10** of about **43** for **mre11 and "multidrug resistance" and "measure"**. (**0.28** seconds)

The ATP switch model for ABC transporters - Nature Structural ...
... Elegant studies of the mammalian **multidrug resistance** P-glycoprotein (P-gp)
... of the DNA double-strand break repair **Mre11** nuclease and Rad50-ATPase. ...
www.nature.com/nsmb/journal/v11/n10/full/nsmb836.html - Similar pages

[PDF] Structure and function of efflux pumps that confer resistance to drugs
File Format: PDF/Adobe Acrobat - View as HTML
... Ford and Higgins (1997) Structure of the **multidrug resistance** P-glycoprotein to 2.5 nm ... repair **Mre11** nuclease and Rad50-ATPase. Cell 105, 473–485 ...
www.biochemj.org/bj/376/0313/3760313.pdf - Similar pages
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Genome Biology | Full text | Systematic quantification of gene ...
... For example among the RAD52 epistasis group (**MRE11**-RAD50-XRS2, RAD51, 52, ... [29] implicated this function in **multidrug resistance**, our data suggest ...
genomebiology.com/2004/5/7/R49 - 238k - Cached - Similar pages

[PDF] The structure and function of efflux pumps that confer resistance ...
File Format: PDF/Adobe Acrobat - View as HTML
... MexAB/OprM [135] transport systems that confer **multidrug resistance** in E. coli and ... architecture of the DNA double-strand break repair **Mre11** nuclease ...
www.biochemj.org/bj/imps_x/pdf/BJ20020957.pdf - Similar pages

BioMed Central | Full text | Characterisation of cytotoxicity and ...
... The products of the three genes RAD50, **MRE11** and XRS2 together form the ...
SE: From MDR to MXR: new understanding of **multidrug resistance** systems, ...
www.biomedcentral.com/1471-2210/4/31 - 218k - Cached - Similar pages

[PDF] 2002 Breast Cancer Research Program Award List
File Format: PDF/Adobe Acrobat - View as HTML
... Reversal Agents of **Multidrug Resistance** in Breast. Cancer. $110488. BC033149
... Examining the Role of Msh2 and **Mre11** in Telomere ...
cdmrp.army.mil/pubs/books/bc03awards.pdf - Similar pages

Current Perspectives on the Clinical Experience, Pharmacology, and ...
... and SN-38 by the **multidrug resistance** protein (MRP) and its inhibition by PAK-104P. ... Phosphorylation of Histone H2AX and Activation of **Mre11**, Rad50, ...
clincancerres.aacrjournals.org/cgi/content/full/8/3/641 - Similar pages

Characterisation of cytotoxicity and DNA damage induced by the ...
... The products of the three genes RAD50, **MRE11** and XRS2 together form the ...
a mammalian recombination assay to **measure** stimulation of HR by ICRF-187 and ...
bmc.ub.uni-potsdam.de/cgi-bin/show.pl?1471-2210-4-31 - 199k - Cached - Similar pages

CTSL - Cathepsin L precursor
... for the dominant, selectable human **multidrug resistance** (MDR1) gene. ...
Sin, and tomosyn and decreased cathepsin L, **Mre11**, and topoisomerase II alpha. ...
www.pdg.cnb.uam.es/UniPub/iHOP/gg/87538.html - 152k - Cached - Similar pages

[PDF] Systematic quantification of gene interactions by phenotypic array ...
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... **measure** exponential growth rates directly (see part A of the ... function in **multidrug resistance**, our data suggest such ...
bmc.ub.uni-potsdam.de/cgi-bin/ show.pl?gb-2004-5-7-r49/gb-2004-5-7-r49.pdf - Similar pages

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Go to: General Description References Sequence General Information ...
... utilizes two bc-box motifs for degradation of p53 and another target, **mre11**
... technique & a yeast-based **functional assay** were used to construct, ...
srs.sanger.ac.uk/srsbin/cgi-bin/ wgetz?-e+%5BREFSEQ-ID:NM_000546%5D - 513k - Cached - Similar pages

Key: 4401 Medline: 20531074 Authors: Khatchatouriants A;Lewis A ...
... In a transgenic **functional assay**, the proline-rich C-terminal domain is not
... Although yeast **Mre11** is known to promote genome stability through ...
biosci.umn.edu/CGC/Bibliography/4401.txt - 355k - Cached - Similar pages

1: Biochim Biophys Acta 2001 Dec 30;1522(3):175-86 The modulation ...
... defective cell-cycle delays after induction of DSBs in the absence of **Mre11**.
... To **screen** p73 for mutations we have developed a **functional assay** which ...
www.lri.fr/ia/Genomics/CORPUS/BMcorpus.txt - 513k - Cached - Similar pages

*113705 BREAST CANCER, TYPE 1; BRCA1
... damage that are mediated by the RAD50-**MRE11**-p95 complex. ... constituted the basis for a BRCA1 **functional assay** and suggested ... was used as a probe to **screen** a human ...
srs.embl-heidelberg.de:8000/ srs5bin/cgi-bin/wgetz?-e+%5Bomim-id:113705%5D - 101k - Supplemental Result - Cached - Similar pages

SNP structure,function,disease:
... human **MRE11** homologue using a two-hybrid **screen** for DNA ... and degradation of members of the **Mre11**-Rad50-NBS1 ... of the first to use a **functional assay** to appraise ...
www.snps3d.org/cgi-bin/tg/edge.pl?n1=4361&n2=4292 - 69k - Supplemental Result - Cached - Similar pages

[PDF] Functional analysis of C-terminal missense mutations identified in ...
File Format: PDF/Adobe Acrobat
... form the basis of a **functional assay**. ... such as Rad51/BRCA2 (10,11) and Rad50/**Mre11**/p95 (12 ... found in 50 healthy Swedish control individuals (no **screen** has been ...
www.mayo.edu/research/bmb/Monteiro_2.pdf - Supplemental Result - Similar pages

Beyond the ABCs of CKC and SCC: Do centromeres orchestrate sister ...
... A **functional assay** for centromere-associated sister chromatid cohesion. ...
C. (2001) Human Rad50/**Mre11** is a flexible complex that can tether DNA ends. ...
www.ejbiochem.org/cgi/content/full/269/9/2300 - Similar pages

Molecular Biology of Fanconi Anemia: Implications for Diagnosis ...
... group by a **functional assay** or by the detection of a specific mutant allele,
... DNA cross-link-dependent RAD50/**MRE11**/NBS1 subnuclear assembly requires ...
www.bloodjournal.org/cgi/content/full/90/5/1725 - Similar pages

[DOC] Executive Summary:
File Format: Microsoft Word 2000 - View as HTML
... is the development and use of a **functional assay** for tumor establishment and
... the NFBD1/MDC1-**Mre11** complex), which is thought to be more potent in ...
dcb.nci.nih.gov/thinktank/NCI_THINK_TANK_REPORT.doc - Similar pages

SNP structure,function,disease:
... study is one of the first to use a **functional assay** to appraise ... We isolated a highly conserved human **MRE11** homologue using a two-hybrid **screen** for DNA ...
www.snps3d.org/cgi-bin/tg/edge.pl?n1=5395&n2=4361 - 48k - Supplemental Result - Cached - Similar pages

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